



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/801,789

03/16/2004

Andy Yu

M-16550 US

3122

32605 7590 04/16/2007
MACPHERSON KWOK CHEN & HEID LLP
2033 GATEWAY PLACE
SUITE 400
SAN JOSE, CA 95110

EXAMINER

MAI, ANH D

ART UNIT

PAPER NUMBER

2814

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/801,789	Applicant(s) YU ET AL.	
	Examiner Anh D. Mai	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 15-17 and 41-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 15-17 and 41-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. The Remarks filed February 6, 2007 is acknowledged. Claims and 1-11, 15-17 and 41-68 are pending.

From the Previous Office Action

2. Claims 1-11 and 15-17 are rejected under 35 U.S.C. 103(a) for being unpatentable over Sung (U.S. Patent No. 6,018,178) in view of Pan (U.S. Patent No. 5,760,435) all of record, as previously applied.
3. Claims 41-48, 50 and 52-54 are rejected under 35 U.S.C. 103(a) for being unpatentable over Sung '178 in view of Chen et al. (U.S. Patent No. 6,271,089) of record, as previously applied.
4. Claims 49 and 51 are rejected under 35 U.S.C. 103(a) for being unpatentable over Sung '178 and Chen '089 as applied to claim 41 above, and further in view of Pan '435, as previously applied.
5. Claims 55-68 are rejected under 35 U.S.C. 103(a) for being unpatentable over Sung '178 in view of Hong (U.S. Patent No. 5,576,232) of record, as previously applied.

Response to Arguments

6. Applicant's arguments filed February 6, 2007 have been fully considered but they are not persuasive.

With respect to the rejection of claims 1-11 and 15-17, Applicant argues:

Applicants respectfully submit that the Examiner's rejection is invalid because the prior art provides **no suggestion** or motivation to modify the teachings of Sung in the manner suggested by the Examiner.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Pan clearly teaches: "it is therefore an object of this invention to provide a method of forming a high density memory cell with one control gate and two floating gate of **double storage efficiency**" (col. 3, ll. 38-42).

Thus, the motivation is clearly suggested by Pan.

Therefore, the rejection of claims 1-11 and 15-17 is maintained.

With respect to the rejection of claims 41-48, 50 and 52-54, applicant argues:

The Examiner's reason for modifying Sung's teachings is invalid, as Chen clearly shows that there is no desirability for making the Examiner's suggested modification of Sung. The Examiner's proposed modification is simply irrelevant to the Examiner's proposed motivation or suggestion.

7. In response to applicant's argument that the Examiner's proposed modification is simply irrelevant to the Examiner's proposed motivation or suggestion, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Therefore, the rejection of claims 41-48, 50 and 52-54 is maintained.

Art Unit: 2814

With respect to the rejection of claims 49 and 51, applicant argues:

As the Examiner merely cites Pan for teaching using ONO as an insulator material, the combined teachings of Sung, Chen and Pan neither disclose nor suggest Applicants' Claims 49 and 51.

By merely utilizing ONO for the insulator, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416., 125 USPQ 416.

Therefore, the rejection of claim 49 and 51 is maintained.

With respect to the rejection of claims 55-68, Applicant argues:

Contrary to the Examiner's assertion, Hong **does not** teach the **control gate covering a first floating gate and a second floating gate**, as Hong's sidewall spacers constitute only a floating gate:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., control gate covering a first floating gate and a second floating gate) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant appears to argue a limitation that does not exist. In fact, the actual limitation of claim 55, lines 2-4 from the bottom, is: "control gate **being covered by** the first floating gate... and **being covered by** the second floating gate...".

Therefore, the rejection of claims 55-68 is maintained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh D. Mai whose telephone number is (571) 272-1710. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2814

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ANH D. MAI
PRIMARY EXAMINER